

USER FRIENDLY GUIDANCE DEVICE FOR SENIOR CITIZENS

M.Roja sri¹, S.Sivashankari², Dr Sankara Malliga G³

Assistant Professor^{1,2,3}

ANAND INSTITUTE OF HIGHER TECHNOLOGY

ABSTRACT

The common way by which people communicate in daily life is through the speech. Voice recognition technology is touted to mature and become the default method to control a variety of interfaces, including the mobile phone. The whole aim of the device is making the lives easier by solving everyday problem of the elderly people. This device guide the senior citizens by getting their destination via voice and guide them to the desired



location by the machine voice.

INTRODUCTION

The aim of the project is to develop a device which is mainly for making the lives of the elderly people easier. Its main use is navigation. As voice assistant are more widely used, more features are upgraded for the use of elderly people. Although each currently available voice assistant has unique features, they share some similarities and are able to perform the following basic tasks. Set timers

Answer basic informational queries (“What time is it?What’s the weather forecast?”).

The younger person has more knowledge to use the browser and gadgets like mobile phones,laptops,etc. This is an

innovative system for senior citizens; it acts as a voice assistant for them. All actions performed by the user the system speaks out and helps the user to know his current position. Researchers have recently proven that voice assistant will respond to

inaudible commands delivered at the ultrasonic frequencies. One of the main issues with these voice activated devices is security and it is not user friendly for elderly people.

Sometimes people does not know about the correct path to attain their desired location . This device will help those people to reach their destination by directing via voice commands.

RELATED RESEARCH

TITLE: The Most Useful Skills for Google Home.

DESCRIPTION: This research made a device which is capable of doing several actions in home. Start the coffee maker, get a read on traffic, warming the home.

TITLE:Home Automation Using Internet of Things

DESCRIPTION: Wireless home automation device do things in automatic manner

without Getting any information or comments from user.

forests, help farmers harvest their fields, and navigate airplanes on the ground on the air.

DESCRIPTION

Raspberry Pi

The Raspberry Pi is a low cost, credit-card sized computer which plugs into a computer monitor or TV, and requires a standard keyboard and mouse. It includes built in WIFI and bluetooth low energy connectivity, making it truly an IOT ready device. The Raspberry Pi uses the ARM processor architecture and Linux operating system or Risc OS.

GPS

A GPS is a device that is capable of receiving information from GPS satellites and the to calculate the devices geographical position. This may display the position on a map, and it may offer directions. They can be used to map

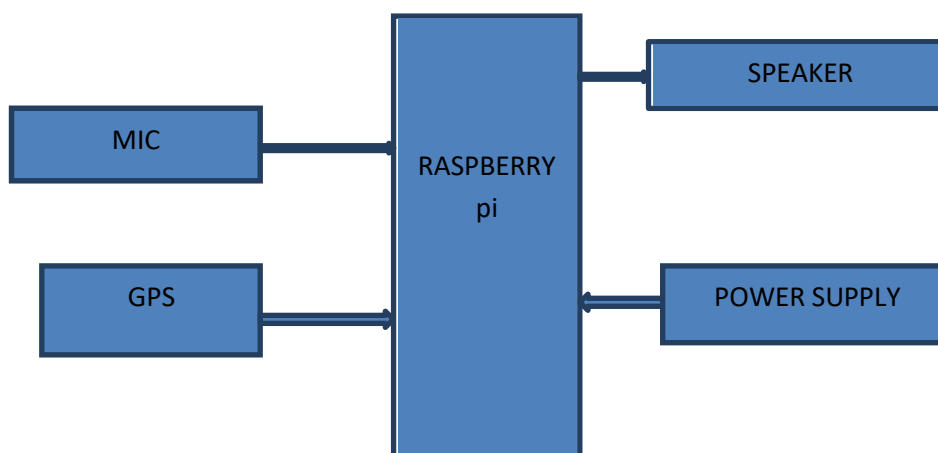
SPEAKER

The purpose of speakers is to produce audio output that can be heard by the listener. Speakers are transducers that convert electromagnetic waves into sound waves. Speakers are one of the most common output devices used with computer systems. Some speakers are designed to work specifically with computers, while others can be hooked up to any type of sound system.

MICROPHONES

Microphones are used in many applications such as telephones, hearing aids, public address systems for concert halls and public events, motion picture production, live and recorded audio engineering, sound recording, two-way radios, megaphones, radio and television broadcasting, and In computers for recording voice, speech recognition, VOIP, and for non-acoustic purposes such as ultrasonic sensors or knock sensors.

ARCHITECTURAL DIAGRAM



WORKING PRINCIPLE

The Guidance device jumps into action at the mention of a keyword. This is usually a

greeting that includes the assistant's name once it's picked up its virtual ears, you say a command or ask it a question. In the combination of the physical and digital parts of the Raspberry pi and GPS module, the location can be identified. The microphone and the speakers are the input and output devices and machines. The smart part is their direct connection to the internet and advanced speech recognition software. The guidance device is a voice assistant, It interpret human speech and respond via synthesized voices users can ask their assistants questions and it direct them to reach their location .This device can be used in multiple different ways to help the senior citizens to make their work easier. The device first records the users speech .Because interpreting sounds takes up a lot of computational power, The recording of users speech is sent to the servers is analysed more efficiently. Google breaks down what you said into individual sounds. It then consults a database containing various word pronunciations to find the correct word or key word it performs the task in the keyword . The device records the user's location and their destination and search it in google maps, it obtains the users location by GPS and recognise the destination direct them by the machine voice.

what is the time, what is the temperature)

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PURPOSE

The purpose of the project is to guide the elderly people who does not know about the android phones, gadgets and does not know about the way to reach their desired location .It also gives the answer for the simple daytoday questions.

APPLICATION

- I. It guides the users to the reach the location.
- II. It answers simple questions. (like